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REMARKS

Claims 1-28 are pending in the present application. In the Office Action the Examiner listed claims 1-27 as pending yet in the Response submitted on January 27, 2004 Applicants amended the claims to include two new claims 27 and 28. Applicants respectfully request clarification of this issue. Reconsideration and allowance of the claims is respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-27 stand rejected 35 U.S.C. § 102(e), as allegedly anticipated by U.S. Patent No. 6,486,244 to Adedeji et al. (Adedeji '244) or U.S. Patent No. 6,258,879 to Adedeji et al. (Adedeji '879). Adedeji '244 is a divisional application of Adedeji '879.

Adedeji '244 and '879 disclose a process for manufacturing a thermoplastic composition comprising a polyphenylene ether resin and a styrenic resin which involves the use of a concentrate of the polyphenylene ether resin and an organic phosphate compound. The polyphenylene ether resin composition may optionally contain a nonelastomeric polymer of an alkenylaromatic compound. Non-elastomeric block copolymer compositions of styrene and butadiene can also be used that have linear block, radial block or tapered block or tapered block copolymer architectures. (Col. 3, lines 30-63) The inventors of Adedeji '244 and '879 are Adedeji (an inventor of the pending application), Hossan, Pecak, and Ting.

A rejection under 35 U.S.C. § 102(e) requires that the invention be described in a published application or a patent granted on an application by another before the invention by the applicant for patent. In the instant case the inventorship of the references are not identical to the inventorship of the pending application making the inventive entity different in the application and patent despite the presence of a common inventor.

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It is well recognized that some aspects of an invention may be the work of a single inventor out of a group of inventors. As shown in the accompanying declarations from Robert Hossan and Sai Pei Ting, co-inventors of Adedeji '244 and '879 it was Adedeji's suggestion to include non-elastomeric block copolymer compositions of styrene and butadiene having linear block, radial block or tapered block copolymer architectures in the concentrate described in Adedeji '244 and '879.

Thus it is clear that the instant claims cannot be anticipated under 102(e) because invention was not by another as required by the statute because Adedeji was the originator of the idea to include tapered block copolymers in Adedeji '244 and '879 and Adedeji is an inventor of the pending application. Withdrawal of the rejection under 35 U.S.C. § 102(e) is respectfully requested.

Claims 1-25 and 27 stand rejected 35 U.S.C. § 102(b or e), as allegedly anticipated by U.S. Patent No 6,165,309 to Burnell or General Electric EP 0 124 916 (EP 916) with U.S. Patent No. 6,274,670 to Adedeji (Adedeji '670) used as a teaching reference.

Burnell generally describes a method for improving the adhesion between a conductive laminate and a substrate material comprising admixing a copolymer of a vinyl aromatic compound and an alpha,beta-unsaturated cyclic anhydride with the polyphenylene ether resin to form a substrate. The copolymer of a vinyl aromatic compound and an alpha,beta-unsaturated cyclic anhydride is preferably a polystyrene maleic anhydride copolymer or a rubber modified polystyrene maleic anhydride copolymer. The composition may, optionally, comprise an impact modifier (column 7, line 33-59), a non-elastomeric polymer of an alkenyl aromatic compound (column 7, line 60 to column 8, line 33) which may be, inter alia, a FINACLEAR resin, and one or more of various additives (column 8, lines 34-49). As has been discussed in previous office actions Burnell's examples include opacifying additives and these compositions have been shown to exhibit no light transmission. The Examiner now asserts that the compositions of Burnell are inherently transparent but the Examiner has made this assertion without supplying sufficient reasoning to support this assertion.

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In relying on the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art. Applicants can find no teaching in Burnell that the composition is or even could be transparent. Plainly spoken there is no indication in Burnell what effect the inclusion of a copolymer of a vinyl aromatic compound and an alpha,beta-unsaturated cyclic anhydride has on the transparency of the composition.

In a prior Office Action the Examiner has cited additional references that teach that the vinyl aromatic compound/alpha,beta-unsaturated cyclic anhydride copolymer and the polyphenylene ether, individually, are "clear polymers". None of the references teach that the combination of a vinyl aromatic compound/alpha,beta-unsaturated cyclic anhydride copolymer and a polyphenylene ether resin, as taught in Burnell, is transparent. Applicants note that the chemical arts are notoriously unpredictable and the area of transparent polymeric compositions is a particularly good example of this unpredictability due to the multiplicity of factors that affect transparency. Given the unpredictability of the chemical arts and the lack of an explicit teaching in the prior art regarding the transparency of the combination of vinyl aromatic compound/alpha,beta-unsaturated cyclic anhydride copolymer and a polyphenylene ether resin there is insufficient evidence to support the assertion that transparency necessarily flows from the composition of Burnell without the opacifying additives. Absent some teaching on this topic there is inadequate basis for a finding that transparency necessarily flows from the composition of Burnell.

EP 916 discloses a composition comprising 50-70 parts by weight polyphenylene ether, 0-20 parts by weight of polystyrene or saturated-rubber-modified polystyrene, 25-45 parts by weight of a hydrogenated block copolymer, 10-20 parts by weight aromatic phosphate compound, 2-10 parts by weight mineral oil, and 0-10 parts by weight typical additives. (Page 2, lines 18-23) The Examiner has cited Adedeji '670 to teach that the inclusion of mineral oil does not affect transparency, thus reaching the conclusion that the composition taught by EP 916 is inherently transparent. Applicants disagree with this

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conclusion, particularly since Adedeji '670, while reciting mineral oil in claims 6 and 16, provides no teaching with regard to amounts, contrary to the Examiner's assertions. Thus Applicants respectfully assert that the Examiner has not provided adequate basis for a finding of inherent anticipation.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-27 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 6,165,309 to Burnell et al. ("Burnell") or EP0 124 916 (EP 916) in view of U.S. Patent No. 5,294,654 to Hellstern-Burnell et al. ("Hellstern-Burnell"). Applicants respectfully traverse this rejection.

EP 916 and Burnell have been discussed above. Hellstern-Burnell generally describes a composition comprising a polyphenylene ether, polystyrene, glass fibers, inorganic nonfibrous agents, carbon fibers or metal-coated graphite fibers, and certain disphosphate- or polyphosphate-based flame retardants. The Examiner's comments indicate that Hellstern-Burnell has been cited for its teaching with regard to the molecular weight of the poly(arylene ether).

The Examiner has asserted that "transparency is inherent in the compositions. It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to leave out the opacifying optional components". (October 28, 2003 office action, page 2) Applicants disagree.

A finding of inherency requires that the physical property necessarily flow from the composition. Applicants respectfully assert that this requirement has not been met in the instant case. Burnell requires the presence of a vinyl aromatic compound/alpha,beta-unsaturated cyclic anhydride copolymer and a polyphenylene ether resin. The art is silent with regard to the transparency of compositions comprising vinyl aromatic compound/alpha,beta-unsaturated cyclic anhydride copolymer and a polyphenylene ether resin. Given that silence it is impossible to ascertain whether transparency would necessarily flow from the composition.

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Similarly, EP 916 requires the presence of large amounts of mineral oil. Given the unpredictability of the chemical arts and the lack of an explicit teaching in the prior art regarding the transparency of the combination of mineral oil and a polyphenylene ether resin there is insufficient evidence to support the assertion that transparency necessarily flows from the composition of EP 916 without the opacifying additives.

It is believed that the foregoing remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862 maintained by Assignee.

Respectfully submitted,

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